

“Plains CO₂ Reduction Partnership – Phase II”

Submitted by: Energy & Environmental Research Center;
Principal Investigator: Edward N. Steadman; Duration: 4-years.

PARTICIPANTS

| <u>Sponsor</u> | <u>Cost Share</u> |
|------------------------------------|--------------------------|
| Lignite Industry Participants | |
| Excelsior | \$ 95,000 |
| Great River Energy | \$ 60,000 |
| Great Northern Power Development | \$ 60,000 |
| SaskPower | \$ 60,000 |
| Excel Energy | \$ 60,000 |
| Apache Canada (in-kind) | \$ 3,157,968 |
| Amerada Hess (in-kind) | \$ 1,000,000 |
| Ducks Unlimited (in-kind) | \$ 200,759 |
| Energy & Utilities Board (in-kind) | \$ 571,048 |
| ND State University (in-kind) | \$ 68,611 |
| Prairie Public Television | \$ 276,188 |
| NDIC | |
| Oil & Gas Research Council | \$500,000 |
| Oil & Gas Res.Council (in-kind) | \$157,308 |
| Geological Survey (in-kind) | \$141,010 |
| Lignite Research Council | \$360,000 |
| U.S. DOE | <u>\$14,300,000</u> |
| Total Cost | \$21,487,892 |

Project Schedule - 48 Months

Contract Date – 12/7/05

Start Date – 12/7/05

Completion Date – 10/31/09

Project Deliverables

Contract Signed: December 7, 2005 (✓)

Progress Reports:

4/30/06 (✓); 10/31/06 (✓);

4/30/07 (); 10/31/07 ();

4/30/08 (); 10/31/08 ();

4/30/09 ();

Final Report 10/31/09 ()

OBJECTIVE / STATEMENT OF WORK:

Based on Phase I results (see contract LRC FY-04-L(50)-128 “Plains CO₂ Reduction Partnership (PCORP) Phase I, initiate Phase II activities that continue assessing sequestration opportunities leading to field sequestration tests to validation eventual commercial applications that include geologic storage and coal seams (producing coal bed methane). Assess sequestration economics, risk, and monetary co-benefits of carbon sequestration; Provide public carbon sequestration outreach. The program goal is to mitigate risk to the coal-based power industry by taking a market- & incentive-based approach to carbon management.

STATUS

October 1 – December 31, 2005. Presentations were made in seven different meetings/conferences. Preliminary technical discussions began regarding the field validation tests for: 1) enhanced oil recovery at the Beaver Lodge field, North Dakota; 2) Zama, Alberta acid gas injection; coal seam well logs and identification of four areas for further investigation and 3) terrestrial test site selection. Further work was conducted with respect to characterization of sequestration opportunities including soil work, map work, and data assembly and display. Development of NEPA documents occurred. Work began on public outreach and education activities including: development of draft fact sheet, development of preliminary video outline and public web site. Work began on identification of commercially available sequestration technologies ready for large-scale deployment.

October 1, 2005 – March 31, 2006. Results for this period focused on developing NEPA Compliance Documents, Experimental Design Packages, Outreach Action Plans, Regional Characterization Gap Assessments, Regulatory Permitting Action Plans, and establishing subcontracts.

April 1, 2006 – September 30, 2006. Progress was made in field validation test Tasks 2-5 and in the supporting Tasks 1, 6,7,8,9, & 10. Progress was made at the Zama field test site with a solid measurement, mitigation, and verification plan falling into place as injection of the acid gas is about to proceed. Preparatory work for the Beaver Lodge field validation test is continuing. Arrangements for the necessary permits have been made with regard to the lignite field test and progress was made securing commercial partners. The Prairie pothole field test site has been selected and background work on the development of terrestrial carbon offsets has begun.